

(FILE 'HOME' ENTERED AT 14:06:23 ON 25 FEB 2005)

FILE 'REGISTRY' ENTERED AT 14:06:30 ON 25 FEB 2005

L1 8220 S MALEIC ANHYDRIDE
L2 SCREEN 1006 AND 2067
L3 STRUCTURE UPLOADED
L4 QUE L3 AND L2
L5 23561 S 108-31-6/CRN
L6 SCREEN 970 AND 2067
L7 STRUCTURE UPLOADED
L8 QUE L7 AND L6
L9 20096 S L8 FULL
L10 SCREEN 970 AND 2067
L11 STRUCTURE UPLOADED
L12 QUE L11 AND L10
L13 63540 S L12 FULL
L14 282 S L4 FULL
L15 0 S L5 AND L14 AND L9 AND L13
L16 SCREEN 970 AND 2067
L17 STRUCTURE UPLOADED
L18 QUE L17 AND L16
L19 20096 S L18 FULL
L20 5 S L14 AND L19 AND L5

FILE 'CAPLUS' ENTERED AT 14:16:56 ON 25 FEB 2005

L21 4 S L20

FILE 'REGISTRY' ENTERED AT 14:21:40 ON 25 FEB 2005

L22 SCREEN 1006 AND 2067
L23 STRUCTURE UPLOADED
L24 QUE L23 AND L22
L25 SCREEN 1006 AND 2067
L26 STRUCTURE UPLOADED
L27 QUE L26 AND L25
L28 SCREEN 1006 AND 2067
L29 STRUCTURE UPLOADED
L30 QUE L29 AND L28
L31 3 S L24 FULL
L32 0 S L27 FULL
L33 0 S L30 FULL

=>

10/719, 985
11/21/03

L21 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:282017 CAPLUS
DN 138:311568
TI Chemical amplification type positive resist composition
IN Takata, Yoshiyuki; Fujishima, Hiroaki; Uetani, Yasunori
PA Japan
SO U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003068573	A1	20030410	US 2002-207997	20020731 ✓
	TW 573229	B	20040121	TW 2002-9117263	20020730
	JP 2003114523	A2	20030418	JP 2002-224526	20020801
PRAI	JP 2001-234649	A	20010802		

OS MARPAT 138:311568

AB A chemical amplification type pos. photoresist composition is provided which gives

resist patterns showing remarkably improved line edge roughness. A chemical amplification type pos. photoresist composition comprises an acid generator containing a benzenesulfonate ion of I (Q1-5 = H, hydroxyl group, perfluoroalkyl group, alkyl group, alkoxy group, halogen); and a resin having a polymerization unit carrying a group unstable to an acid and

polymerization

unit of an alicyclic lactone of formula II, III (R1-4 = H, Me group; n = 1-3).

IT 509097-33-0P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(resin; acid generation for chemical amplification type pos. resist composition)

RN 509097-33-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with α, α -bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-2-ethanol, 2,5-furandione and hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

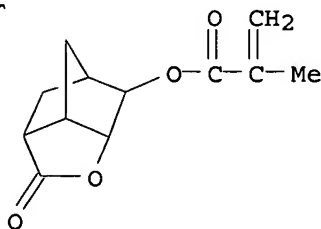
CRN 254900-07-7

CMF C12 H14 O4

① $\text{Sec. } 1a7 = \text{Ex. } 4$
 $= A4$

Table 1 Ex 9 A4 + PG 33

IIa



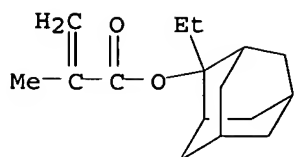
R4 m d

CM 2

CRN 209982-56-9

CMF C16 H24 O2

10267. 98A, 111 This patent AP.
207997. ap.



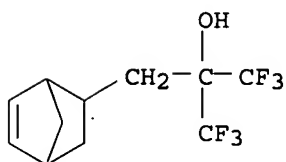
AC8
R3

ML

CM 3

CRN 196314-61-1

CMF C11 H12 F6 O

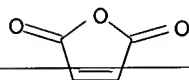


Ma
136

CM 4

CRN 108-31-6

CMF C4 H2 O3



Ab

L21 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:111386 CAPLUS

DN 138:145076

TI Chemically amplified positive-working photoresist composition

IN Araki, Kaori; Kuwana, Koji; Uetani, Yasunori

PA Sumitomo Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003043689	A2	20030213	JP 2001-234648	20010802
PRAI	JP 2001-234648		20010802		

AB Title resist composition, suitable for use in ArF or KrF excimer laser lithog. and having good balance of resolution and sensitivity, comprises an acid-forming agent and an alkali-insol. resin component which contains structural units derived from monomer ACH₂(CR₁R₂)nCR₃R₄OH (A = 2-norbornen-5-yl; n = 0-4; R₁, R₂ = H, C₁-4 alkyl; R₃, R₄ = C₁-6 alkyl including at least one fluorine-substituted alkyl) and is becomes soluble in alkali by reacting with an acid.

IT 492470-60-7P

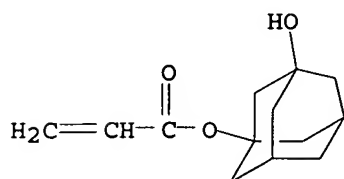
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (chemical amplified pos.-working photoresist composition containing photosensitive acid generator)

RN 492470-60-7 CAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with α,α -bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-
2-ethanol, 2,5-furandione and 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl
2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 216581-76-9

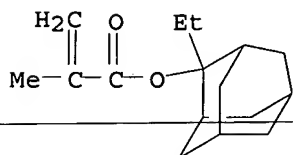
CMF C13 H18 O3



CM 2

CRN 209982-56-9

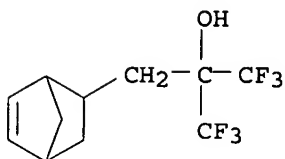
CMF C16 H24 O2



CM 3

CRN 196314-61-1

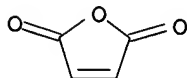
CMF C11 H12 F6 O



CM 4

CRN 108-31-6

CMF C4 H2 O3



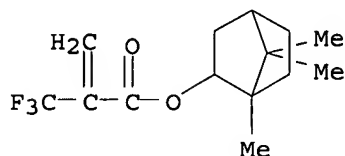
NU

L21 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2003:110930 CAPLUS
 DN 138:178230
 TI Fluorine-containing bicycloheptyl acrylates, their manufacture, their transparent polymers, and photoresists and antireflective materials using them
 IN Kakuta, Shinichi; Komoritani, Haruhiko; Maeda, Kazuhiko
 PA Central Glass Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003040926	A2	20030213	JP 2001-226582	20010726
PRAI	JP 2001-226582		20010726		
OS	MARPAT 138:178230				
AB	The invention relates to F-containing acrylates I (R = F, C1-10-fluorohydrocarbyl). The polymers may comprise other acrylates, norbornenes, styrene derivs., or vinyl ethers.				
IT	496954-73-5P RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (F-containing bicycloheptyl acrylates for transparent polymers for photoresists and antireflective films)				
RN	496954-73-5 CAPLUS				
CN	2-Propenoic acid, 2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with α,α -bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-2-ethanol, 2,5-furandione and 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)				

CM 1

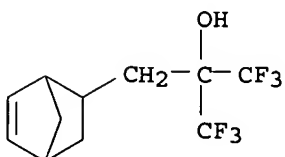
CRN 496954-69-9
 CMF C14 H19 F3 O2



(12)

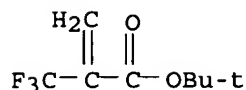
CM 2

CRN 196314-61-1
 CMF C11 H12 F6 O



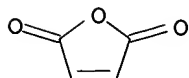
CM 3

CRN 105935-24-8
CMF C8 H11 F3 O2



CM 4

CRN 108-31-6
CMF C4 H2 O3



L21 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:918945 CAPLUS

DN 136:45683

TI Radiation-sensitive resin composition for chemical amplified resist

IN Nishimura, Yukio; Yamahara, Noboru; Yamamoto, Masafumi; Kajita, Toru; Shimokawa, Tsutomu; Ito, Hiroshi

PA JSR Corporation, Japan; International Business Machines Corporation

SO Eur. Pat. Appl., 63 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1164434	A2	20011219	EP 2001-114503	20010615
	EP 1164434	A3	20041222		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002072484	A2	20020312	JP 2001-108824	20010406
	US 2002009668	A1	20020124	US 2001-879894	20010614
	US 6800414	B2	20041005		
	SG 100729	A1	20031226	SG 2001-3498	20010614
	CN 1332205	A	20020123	CN 2001-124927	20010615
	TW 536661	B	20030611	TW 2001-90114559	20010615
	US 2004241580	A1	20041202	US 2004-867892	20040616
PRAI	JP 2000-182297	A	20000616		
	JP 2001-108824	A	20010406		
	US 2001-879894	A1	20010614		

OS MARPAT 136:45683

AB A radiation-sensitive resin composition comprising an acid-labile group-containing

resin and a photoacid generator is disclosed. The resin has a structure of X1R2COR1 (R1 = H, monovalent acid-labile group, C1-6 alkyl which does not have an acid-labile group, C2-7 alkylcarbonyl which does not have an acid-labile group; X1 = C1-4 fluorinated alkyl; and R2 = H, C1-10 alkyl, C1-10 fluorinated alkyl). The resin composition exhibits high transmittance of radiation, high sensitivity, resolution, and pattern shape, and is useful as a chemical amplified resist in producing semiconductors at a high yield.

IT 380886-66-8P 380886-68-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

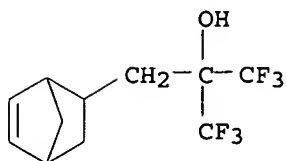
(acid-labile group-containing resin for radiation-sensitive resist composition)

RN 380886-66-8 CAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with α,α -bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-
2-ethanol and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 196314-61-1

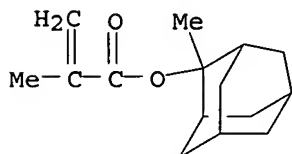
CMF C11 H12 F6 O



CM 2

CRN 177080-67-0

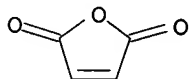
CMF C15 H22 O2



CM 3

CRN 108-31-6

CMF C4 H2 O3



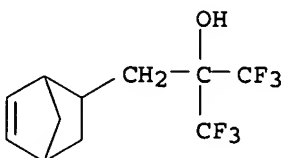
NC

RN 380886-68-0 CAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, α,α -
bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-2-ethanol and 2,5-furandione
(9CI) (CA INDEX NAME)

CM 1

CRN 196314-61-1

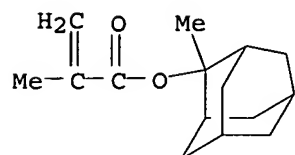
CMF C11 H12 F6 O



CM 2

CRN 177080-67-0

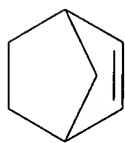
CMF C15 H22 O2



CM 3

CRN 498-66-8

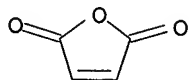
CMF C7 H10



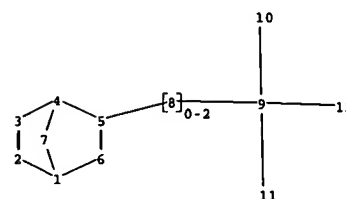
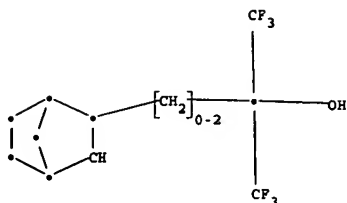
CM 4

CRN 108-31-6

CMF C4 H2 O3



=>



chain nodes :

8 9 10 11 12

ring nodes :

1 2 3 4 5 6 7

chain bonds :

5-8 8-9 9-10 9-11 9-12

ring bonds :

1-2 1-6 1-7 2-3 3-4 4-5 4-7, 5-6

exact/norm bonds :

1-2 1-6 1-7 2-3 3-4 4-5 4-7, 5-6 9-12

exact bonds :

5-8 8-9 9-10 9-11

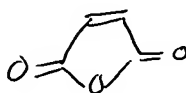
Match level :

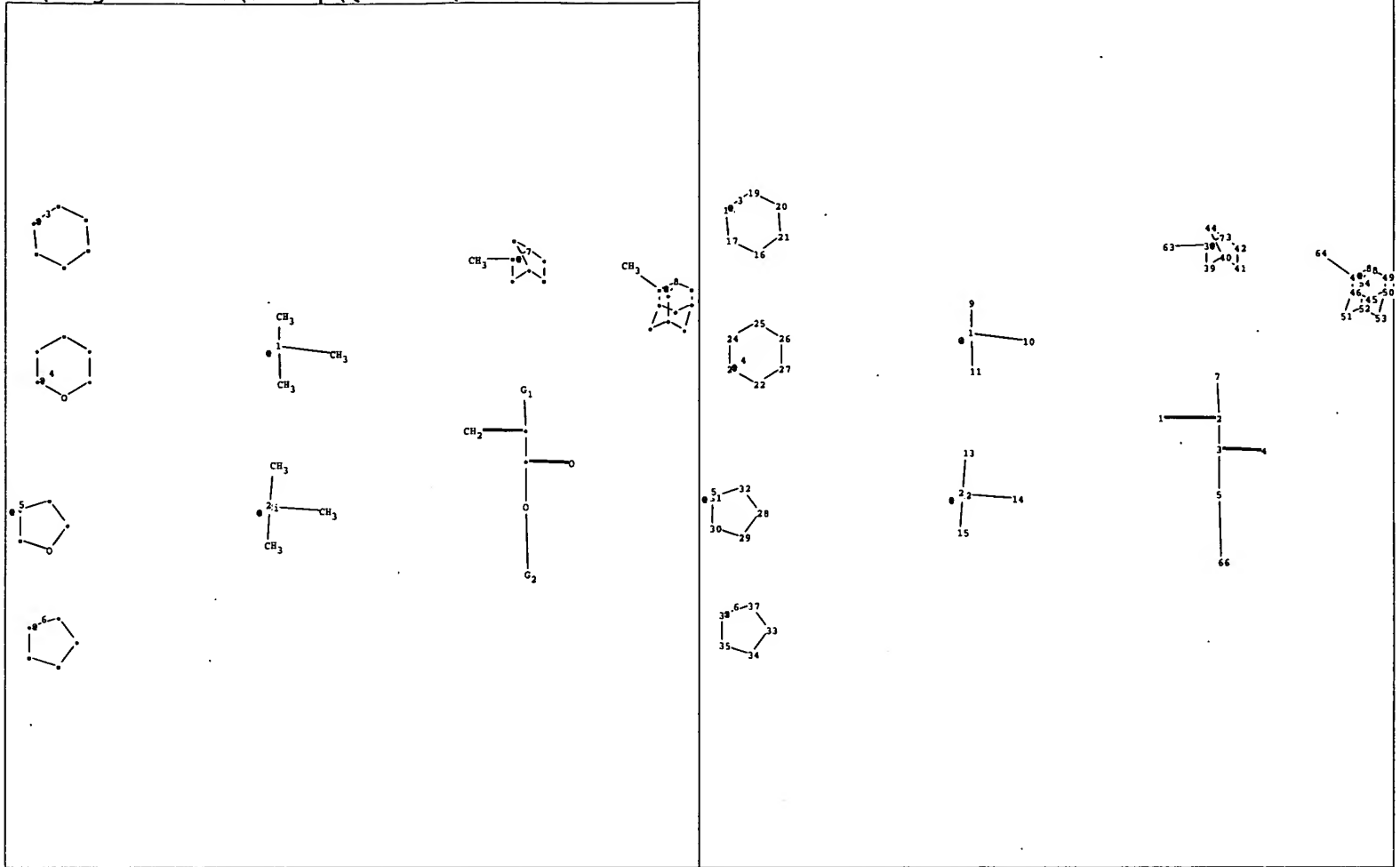
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom

MAIeric Anhydride

C2N

108-31-6





chain nodes :

1 2 3 4 5 7 8 9 10 11 12 13 14 15 63 64 66

ring nodes :

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54

chain bonds :

1-2 2-3 2-7 3-4 3-5 5-66 8-9 8-10 8-11 12-13 12-14 12-15 38-63 47-64

ring bonds :

16-17 16-21 17-18 18-19 19-20 20-21 22-23 22-27 23-24 24-25 25-26 26-27 28-29
28-32 29-30 30-31 31-32 33-34 33-37 34-35 35-36 36-37 38-39 38-43 39-40 40-41
40-44 41-42 42-43 43-44 45-46 45-50 46-47 46-51 47-48 48-49 48-54 49-50 50-53
51-52 52-53 52-54

exact/norm bonds :

5-66 38-43

exact bonds :

1-2 2-3 2-7 3-4 3-5 8-9 8-10 8-11 12-13 12-14 12-15 16-17 16-21 17-18 18-19
19-20 20-21 22-23 22-27 23-24 24-25 25-26 26-27 28-29 28-32 29-30 30-31 31-32
33-34 33-37 34-35 35-36 36-37 38-39 38-63 39-40 40-41 40-44 41-42 42-43 43-44
45-46 45-50 46-47 46-51 47-48 47-64 48-49 48-54 49-50 50-53 51-52 52-53 52-54

G1:H,CH3,CF3

G2:[*1],[*2],[*3],[*4],[*5],[*6],[*7],[*8]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom
13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom
23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:Atom 32:Atom
33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 42:Atom
43:Atom 44:Atom 45:Atom 46:Atom 47:Atom 48:Atom 49:Atom 50:Atom 51:Atom 52:Atom
53:Atom 54:Atom 63:CLASS 64:CLASS 66:CLASS

1 2 3 4 5 7 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
52 53 54 55 59 60 61

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

1-2 2-3 2-7 3-4 3-5 5-42 13-34 25-35 36-37 36-38 39-40 40-41 43-44 44-45
45-46 46-59 47-48 48-49 49-55 50-51 51-54 52-53 60-61

8-9	8-13	9-10	10-11	11-12	12-13	14-15	14-19	15-16	16-17	17-18	18-19	20-21
20-24	21-22	22-23	23-24	25-26	25-29	26-27	27-28	28-29				

5-42 13-34 25-35 46-59 49-55 51-54 52-53

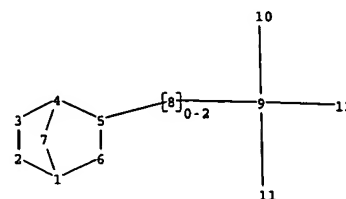
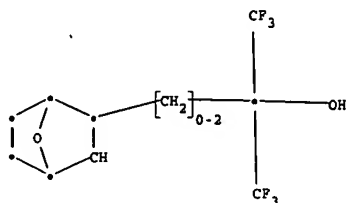
1-2	2-3	2-7	3-4	3-5	8-9	8-13	9-10	10-11	11-12	12-13	14-15	14-19	15-16	16-17
17-18	18-19	20-21	20-24	21-22	22-23	23-24	25-26	25-29	26-27	27-28	28-29	36-37		
36-38	39-40	40-41	43-44	44-45	45-46	47-48	48-49	50-51	60-61					

G2: [*1], [*2], [*3], [*4], [*5], [*6], [*7], [*8], [*9], [*10], [*11]

```

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom
13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom
23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 34:CLASS 35:CLASS 36:CLASS
37:CLASS 38:CLASS 39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS
46:CLASS 47:CLASS 48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:CLASS 54:CLASS
55:CLASS 59:CLASS 60:CLASS 61:CLASS

```



chain nodes :

8 9 10 11 12

ring nodes :

1 2 3 4 5 6 7

chain bonds :

5-8 8-9 9-10 9-11 9-12

ring bonds :

1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6

exact/norm bonds :

1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6 9-12

exact bonds :

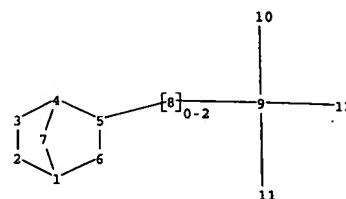
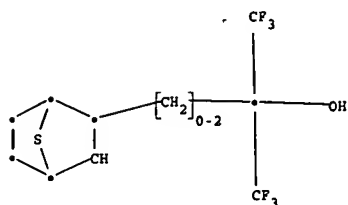
5-8 8-9 9-10 9-11

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom

3

3 hits, do not read on (P)



chain nodes :

8 9 10 11 12

ring nodes :

1 2 3 4 5 6 7

chain bonds :

5-8 8-9 9-10 9-11 9-12

ring bonds :

1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6

exact/norm bonds :

1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6 9-12

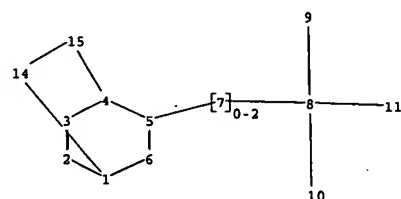
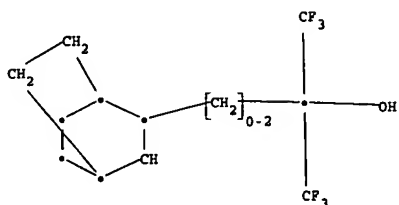
exact bonds :

5-8 8-9 9-10 9-11

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom

0 hits



chain nodes :

7 8 9 10 11

ring nodes :

1 2 3 4 5 6 14 15

chain bonds :

5-7 7-8 8-9 8-10 8-11

ring bonds :

1-2 1-6 1-14 2-3 3-4 4-5 4-15 5-6 14-15

exact/norm bonds :

1-2 1-6 1-14 2-3 3-4 4-5 4-15 5-6 8-11 14-15

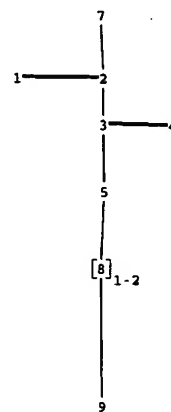
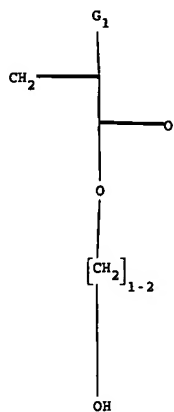
exact bonds :

5-7 7-8 8-9 8-10

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
14:Atom 15:CLASS

0 hits



chain nodes :

1 2 3 4 5 7 8 9

chain bonds :

1-2 2-3 2-7 3-4 3-5 5-8 8-9

exact/norm bonds :

2-7 3-4 3-5

exact bonds :

1-2 2-3 5-8 8-9

G1:H,CH3

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 7:CLASS 8:CLASS 9:CLASS